

From a conference of midsize school districts

Convened by MDRC with
The Council of the Great City Schools
The National High School Alliance



Relationships, Rigor, and Readiness Strategies for Improving High Schools

Janet Quint Saskia Levy Thompson Margaret Bald

With

Julia Bernstein Laura Sztejnberg

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Preface

In the 21st-century economy, nothing is more important than preparing our young people to achieve success in postsecondary education and in a labor market that increasingly rewards skills and knowledge. Our nation's public high schools are where most young people go to receive that crucial preparation. Yet, in many communities, particularly in our cities, upwards of half of all high school students drop out, and too many of those who finish high school are not ready for higher education, training, or the workplace.

This report offers lessons from the last in a series of three high school reform conferences sponsored by MDRC, the Council of the Great City Schools, and the National High School Alliance, with generous support from the Bill & Melinda Gates Foundation and the James Irvine Foundation. This conference, which brought together leaders from 22 midsize urban school districts on June 25-26, 2007, provided a forum for practitioners to share research and practice-based lessons about helping students transition successfully into high school, stay on track to graduation, and be prepared for moving into postsecondary education, training, or the workforce. District leaders also heard from some of the nation's top education researchers and leaders, including Ronald Ferguson of Harvard's John F. Kennedy School of Government; Chancellor Joel Klein of the New York City Department of Education; Pedro Noguera of New York University's Steinhardt School of Culture, Education, and Human Development; and Bob Wise of the Alliance for Excellent Education.

As this report's title suggests, the conference generated a lot of provocative discussion about the importance of building strong relationships among teachers and students, offering rigorous and relevant academics, and focusing on making students ready for their next step, whether postsecondary education or the world of work. And while the district leaders affirmed their commitment to learning from the best that strong research has to offer, many of the strategies urban districts are employing are based on the insight and experience of educators and have not been rigorously tested. A challenge for both practitioners and researchers is to build a shared learning community in which researchers are responsive to the needs of district and school leaders and practitioners are committed to taking lessons from research and to building knowledge as they innovate. The report concludes with some ideas for creating such a shared knowledge-building agenda.

Finally, we express our thanks to the more than 60 leaders from the 22 districts for sharing their wisdom and experience, as well as to our co-conveners and our funders for their support.

Gordon L. Berlin President

Acknowledgments

The authors are especially grateful to all those who supported, participated in, and helped to organize MDRC's third conference on high school reform, Putting Knowledge to Work: A Summit of Midsize School Districts, which serves as the basis for this report. The conference was funded by the Bill & Melinda Gates Foundation and the James Irvine Foundation and was convened in partnership with the Council of the Great City Schools and the National High School Alliance. The rich conference proceedings grew out of the candid and constructive participation of leadership teams from 22 participating districts (listed on page 2) and the skilled facilitation of the conference faculty: Elaine Allensworth and Melissa Roderick, Co-Directors, Consortium on Chicago School Research; Bob Balfanz, Research Scientist, Center for Social Organization of Schools at Johns Hopkins University; Gerry House, President, Institute for Student Achievement; J. D. Hoye, President, National Academy Foundation; and Jason Snipes, Director of Research, Council of the Great City Schools. The conference agenda was shaped by the input of advisors, including Betsy Brand of the American Youth Policy Forum, Steve Fleischman at the American Institutes for Research, Naomi Housman in her former role as director of the National High School Alliance, Nancy Pelz-Paget of the Aspen Institute, and Shirley Schwartz and Mike Casserly at the Council of the Great City Schools.

We owe a particular debt of gratitude to the MDRC staff who worked tirelessly to make the conference a success: Laura Sztejnberg and Sarah McNeil, who managed planning and logistics and prepared the preconference materials; Adam Wodka, who provided research assistance; Jim Healy, Daniel Fallon, Mona Grant, and Liz Cosarca, who provided logistic support; and Julia Bernstein and Laura Sztejnberg, who recorded and summarized the events. We also thank the many other advisors, presenters, and MDRC staff who attended and contributed to this unique meeting.

We want to thank our advisers and conference participants for their thoughtful comments and suggestions on this report. In particular, thanks to the many districts that verified or elucidated the content of earlier drafts and to Anne Stanton at the James Irvine Foundation, Sheri Ranis at the Bill & Melinda Gates Foundation, and Shirley Schwartz at the Council of the Great City Schools for reviewing early report drafts. We also thank our colleagues at MDRC: Gordon Berlin, John Hutchins, James Kemple, and Robert Ivry provided general guidance, in addition to many rounds of feedback; Janell Smith tracked down data and references; Vivian Mateo and David Sobel provided production assistance; and Robert Weber helped with the editing of the report.

The Authors

Introduction

Every year, America's public high schools enroll millions of students from a variety of backgrounds who will do well in their classes and graduate on schedule, ready for college or work. But for one in four incoming freshmen, the numbers tell a different story: Within four years of entering high school, these students will have been held back or will have dropped out.¹ Other students will graduate unprepared to do college-level work or without career goals or job prospects.

There is widespread acknowledgement that if more students are to succeed in high school, high schools themselves must change. Many districts have begun to implement important reforms designed to make high schools both more welcoming and more academically rigorous, engaging students in critical thinking and in efforts to synthesize and apply knowledge to new problems. On June 25-26, 2007, more than 60 senior leaders from 22 school districts across the country that have introduced key innovations in their high schools participated in a conference, **Putting Knowledge to Work: A Summit of Midsize School Districts**, to describe their reform initiatives and to discuss ways in which research and evaluation can inform and complement school change. Over the course of the two-day conference, held in New York City, these leaders identified both common challenges and important trends in the reform strategies districts are adopting to address them. What they and others attending the conference had to say is at the heart of this report. The report is intended not just to capture the proceedings of the conference for those who attended but to engage a broad audience as part of a learning community committed to identifying strategies for improving underperforming high schools.

The districts that participated in the conference serve high school populations of 5,600 to 32,650 and are generally located in cities. At the time of the conference, some districts were newly involved in school change efforts or had new superintendents who were introducing reforms. Other districts were continuing to refine reform strategies that had begun several years earlier. The Kansas City, Kansas Public Schools sets the record in this respect — it launched its reform initiative in the first of the district's four large comprehensive high schools more than a decade ago — but several other districts have operated reforms for five years or more. The districts are similarly diverse in their geography and demographics, with attendees from both coasts, the Midwest, the Great Lakes region, the South, Texas, and New England.

¹Laird, Kienzl, DeBell, and Chapman (2007).

Participating School Districts "Putting Knowledge to Work: A Summit of Midsize School Districts" New York City, June 25-26, 2007

Atlanta Public Schools

Austin Independent School District

Boston Public Schools Buffalo Public Schools

Chaffey Joint Union High School District

Charleston County School District

Corpus Christi Independent School District

Des Moines Public Schools Fresno Unified School District

Kansas City, Kansas Public Schools

Kansas City, Missouri School District

McAllen Independent School District

Memphis City Schools

Oakland Unified School District

Omaha Public Schools
Pittsburgh Public Schools
Richmond Public Schools
Saint Louis Public Schools
Saint Paul Public Schools

San Antonio Independent School District

San Francisco Unified School District

Toledo Public Schools

In general, urban districts must contend with issues of teaching and learning on a large scale. In addition, many districts face particular challenges. The Charleston County School District in South Carolina extends over a large geographical area and includes a very diverse student body in urban, suburban, and rural areas. The McAllen Independent School District, located in a poor rural area in Texas near the Mexican border, has large numbers of students who are immigrants, as well as those who are older adults and who are working. There are many English Language Learners not only in districts in California and Texas but also, for example, in the Omaha Public Schools, which has received an influx of immigrants over the last two decades. Even though the districts they represent are diverse, conference participants perceived similar challenges to reforming their high schools.

The conference was organized by MDRC, a nonprofit education and social policy research organization dedicated to learning what works to improve programs and policies that affect low-income people. To date, MDRC has managed 20 major demonstrations and evaluations in education, including studies of three prominent comprehensive high school reform interventions — First Things First, Talent Development, and Career Academies — and the K-12 reform model, Project GRAD. Forthcoming MDRC evaluations of interventions to improve adolescent literacy and of New York City's small high schools of choice will add to the store of knowledge about how to improve high schools. Many of the districts represented at the conference had participated in at least one MDRC study.

Central to MDRC's mission is facilitating dialogue among members of the research community, policymakers, funders, and practitioners. The June 2007 conference was the last of a series of three conferences on high school reform. They have been distinguished by

their emphasis on rigorous evidence — first elucidating what is known and then discussing how such evidence could inform policymakers and practitioners charged with transforming the American high school. The National High School Alliance and the Council of the Great City Schools partnered with MDRC to convene the conferences, which were supported by grants from the Bill & Melinda Gates Foundation and the James Irvine Foundation.

In preparation for the conference, MDRC conducted hour-long telephone interviews with one or more members of leadership teams from the 22 districts. The interviews were intended to provide a cross-district portrait of high school reform and centered on four broad questions: What challenges are you experiencing in your high schools? What interventions have you adopted? What has your implementation experience been? And what are you seeing that lets you know whether the interventions are working?

As the districts described their reform strategies, it became clear that they were responding to three broad challenges:

- Creating an environment in which students feel that teachers and other adults know them and care about them
- Ensuring that classes for students who begin at all levels of academic achievement are supportive, engaging, and demanding
- Giving all students the guidance and assistance they need to plan for their future after high school

This document discusses what districts have done in response to each of these challenges. The next section contains data — both presented by researchers at the conference and gathered from other sources — that frame the discussion and provide evidence on the scope and scale of the issues with which high schools and their students must contend. The core of the report follows — sections that deal in turn with the actions districts are taking to make high schools more supportive, more rigorous, and more oriented toward students' futures. Each of these three sections also includes a text box summarizing MDRC's findings on the topic from its evaluations of high school reforms.

It is important to emphasize that while the reforms that district representatives described are promising and are grounded in research-based principles, little is known with confidence about their effectiveness in raising student attainment and achievement. The last section of the report elaborates on this final point and considers how researchers and practitioners can continue to work together to improve schools.

Clearing Stumbling Blocks on the Road Through High School

The crisis of the American high school is a crisis of unrealized student aspirations, of dreams deferred and all too often abandoned. It is safe to say that no student enters high school hoping to drop out. Rather, virtually all students want to walk across the stage at their high school graduation. And the majority of students say that they intend to continue their education: According to a recent report from Stanford University's Bridge Project, which included a survey of nearly 2,000 students, 88 percent of eighth-graders expected to participate in some form of postsecondary education.² But all too many students set out on a road that leads to failing classes and to dropping out of high school or college. Researchers at the conference presented data that shed light on particularly slippery stretches along that road.

The Ninth-Grade Transition

Ninth grade is the first such stretch — and for high school students, the most treacherous one — where the greatest number of high school students start to fall off course. Representatives from the districts attending the conference described ninth grade as their biggest challenge. Robert Balfanz, research scientist at the Center for Social Organization of Schools at Johns Hopkins University, co-facilitated a workshop and presented data that substantiated their concerns: His calculations showed that 17 of the 22 districts participating in the conference lose 20 percent or more of their students after freshman year. Research conducted at MDRC and elsewhere confirms that ninth grade is a critical point for many students. James Kemple and his colleagues at MDRC traced the trajectories of ninth-graders enrolled in nonselective high schools in four urban school districts. Of a typical cohort of 100 such ninth-grade students followed in the spring of what should have been their tenthgrade year, only 56 had actually been promoted on time and were attending school as tenthgraders. Twenty students had already dropped out, and the remaining 24 had been kept back in ninth grade.³ National data indicate that persistence to the twelfth grade is dramatically lower for students who repeat ninth grade, and the MDRC data corroborate this finding: Of the 24 students retained in grade, only half were still in school three years later. And the

²Venezia, Kirst, and Antonio (2003).

³Kemple (1999).

problems posed by ninth grade have been getting worse: The rate at which students leave school between ninth and tenth grade has tripled over the last 30 years.⁴

Similarly, University of Chicago researcher and conference presenter Elaine M. Allensworth noted that first-year high school grades are the best predictors of whether Chicago Public Schools (CPS) students will succeed in the rest of their high school careers. Allensworth co-directs the Consortium on Chicago School Research, which brings together researchers at the University of Chicago, the school district, and other organizations. Allensworth and the Consortium's executive director, John Q. Easton, have used Chicago school data to develop an "on-track" indicator, which the district has adopted as part of its accountability system. The indicator identifies ninth-grade students as on track if they earn at least five full-year course credits and no more than one F in a core course in their first year of high school. Analyses using this indicator reveal that on-track freshmen are more than three and a half times more likely than off-track freshmen to graduate in four years.

As might be expected, the Consortium's data show that students who have failed half or more of their freshman classes and would need substantial interventions to graduate represent the biggest category of ninth-graders who ultimately drop out. However, students who fail only a few classes are also at high risk of not graduating. Failing just one semester-long course in freshman year, for example, decreases the likelihood of graduating from 83 to 60 percent, and failing a second semester-long course decreases it to 44 percent. Only 31 percent of students with three Fs in a semester during freshman year ultimately graduate. According to the Consortium's research, failures of individual courses are not isolated but tend to indicate broader problems of performance. Assistance for students who have failed only one to three classes can make a big difference in graduation rates.

It is easy to understand why so many students begin to sink rather than swim in freshman year. Ninth-graders may feel lost in the large, anonymous, and sometimes unsafe environments of many comprehensive urban high schools, whose impersonality comes as a shock after the smaller, relatively sheltered atmosphere of middle school. Furthermore, many students enter high school without either basic skills in reading and mathematics or the study skills they need to succeed in more demanding high school courses. The quality of their instruction may be low, as ninth-grade teachers are more likely to be new to the school

⁴Haney (2004).

⁵Allensworth and Easton (2005). Interestingly — and contrary to conventional wisdom — Allensworth told conference attendees that grades are much better predictors of high school or college graduation than test scores or background factors, such as economic status, race, gender, mobility, or age at entry into high school.

⁶Allensworth and Easton (2005).

and the profession and to be uncertified in the subjects they teach.⁷ Teachers who do not know their subjects or cannot explain them well are unlikely to be able to persuade students that what they are learning has meaning for their lives, either now or in the future. Under such circumstances, students may fall behind, despair of ever being able to catch up, and stop trying.

The Consortium found that the particular school a student attends plays a large role in whether he or she stays on track. Differences in the number of students on track at each school remained, even when the researchers controlled for eighth-grade test scores and socioeconomic status. This suggests that school climate and structure play a significant role in students' success in high school. Unsurprisingly, the Consortium's researchers found that freshman-year course performance is better than expected in schools where the relationships between teachers and students are good and where students see high school as relevant preparation for college and the workforce.

A positive school atmosphere is central to good attendance, Allensworth and Easton report. At the conference, Balfanz also sounded the theme that relationships and relevance are key in getting students to come to school. High attendance, in turn, is critical to high performance. If students do not show up at school every day, there is little hope that they will advance on schedule or acquire much-needed skills. According to Allensworth, absenteeism is the strongest factor affecting whether ninth-grade students pass or fail their classes. Ninth-grade absences are 20 times more predictive of eventual graduation than eighth-grade test scores.⁸

Staying on Course for Graduation

To succeed, school reform must begin in the ninth grade but cannot stop there. While ninth grade marks the first critical point in students' high school experience, it is by no means the only such point. The statistics show that on-time promotion to tenth grade is no guarantee of a successful passage through high school. A case in point concerns the 100 "typical students" whose high school careers were traced by Kemple and colleagues: Of the 56 students who were still on track as they entered the tenth grade, 20 (or more than one-third) had fallen off track two years later. 9

⁷Neild (2003).

⁸Allensworth and Easton (2007).

⁹Kemple (1999).

Staying on course for graduation requires that students not only accumulate the necessary number of credits but also take and pass the required classes. To infuse rigor into high school education, many districts have strengthened their graduation requirements. Students pursuing a general diploma typically must take about 20 courses during their high school careers, including four years of English, three years each of math and social studies, and two and a half years of science. Students earning a higher-level diploma must take an additional course each year. Every time a student fails to pass a course or to be promoted, that student's chances of dropping out are compounded.

Like the Consortium, New York City's Department of Education has devised an indicator to identify struggling students. "Overage, undercredited" students are at least two years behind where they should be in accumulating credits toward high school graduation because they have been either held back in a grade or passed along to the next grade, even though they had failing marks. An analysis conducted for the Department of Education's Office of Multiple Pathways to Graduation by The Parthenon Group found that, in 2003, there were 138,000 overage, undercredited students or former students in New York City. Of these, 70,000 were still in school, while 68,000 had dropped out. Almost half (48 percent) of all freshmen become overage and undercredited during high school, which greatly increases the probability that they will leave school before graduating. For example, of the 37,000 students who graduated in the class of 2003, only 19 percent were overage and undercredited; in contrast, 93 percent of the students who should have graduated with the class but dropped out instead were overage and undercredited.¹²

The same factors that influence freshmen to give up on high school also lead students in the upper grades to become disengaged and drop out: Students who have dropped out of high school say that they felt distant and estranged from teachers and administrators. Students may not understand how what they are learning now matters later. And they may lack the preparation to succeed in high school — both general study skills and the vocabulary and comprehension strategies they need to understand what they are reading. Teachers may not know how to remediate these weaknesses in a way that is both supportive and demanding. Instead, they may lower their expectations, asking little of students and creating assignments that students perceive as tedious and irrelevant, that require them to gather and repeat back information but not to analyze it or reflect on what they have

¹⁰Allensworth and Easton's "on-track" indicator takes into account both credit accumulation and failures in core subjects, since students must make progress on both counts in order to graduate.

¹¹Achieve, Inc. (2004).

¹²The Parthenon Group (2005).

¹³Altenbaugh (1998).

learned. Even students who are determined to graduate may opt not to work hard in these courses and instead do just enough to get by.

In addition to making school boring and devoid of challenge, lack of rigor in high school courses does students another disservice: They may graduate with a diploma but without the preparation they need for the academic demands of college.

Preparing Adequately for College

Students' aspirations for postsecondary education have never been higher. According to University of Chicago professor, Consortium on Chicago School Research codirector, and conference presenter Melissa Roderick, 78 percent of CPS graduates stated in 2005 that they hoped to complete a bachelor's degree or higher, and an additional 14 percent reported that they wanted to attain a two-year diploma or vocational certificate. Comparable rates are found for students across the country. Parents — who are an important factor in determining what happens to students after high school — support their children's college aspirations. Ninety-one percent of the CPS seniors studied by Roderick said that their parents wanted them to go to college. These high aspirations reflect an awareness of economic realities. According to Census Bureau data, over the course of a lifetime, people who do not have a college degree earn about half as much as those who do. And the value of a college degree is only expected to increase. It is estimated that 87 percent of the new jobs in high-wage, high-growth occupations expected by 2014 will be filled by workers who have at least some postsecondary education.

Roderick's data show that, despite their ambitious goals, only 45 percent of CPS students who attend four-year colleges end up graduating within six years — another trend that is comparable to trends nationwide. Even though they aspire to attend a four-year institution, a substantial proportion of CPS graduates end up in two-year colleges, whose openadmissions policies have fueled an increase in college attendance across the country. Community colleges now serve more than a third of all undergraduates and an even higher percentage of undergraduates of color. But like four-year schools, two-year colleges do not do a good job of holding on to their students. National data show that nearly half of all students

¹⁴A 2004 census report entitled *Educational Attainment in the United States* shows that workers age 18 and over with bachelor's degrees earned an average of \$51,206 annually, whereas those with only a high school diploma earned, on average, \$27,915 per year. It is not only advanced degrees that can bring in higher salaries. Data show that having some postsecondary education is much better than having none. An associate's degree has clear benefits over a high school diploma alone: In 2005, the census data showed that workers with an associate's degree took home about \$8,500 a year more than workers with only a high school diploma.

¹⁵U.S. Department of Labor (2006).

who begin at community colleges do not complete a degree or enroll at any other college within six years.¹⁶

These statistics raise many questions. Why do so many students who aim for four-year colleges end up at two-year institutions (or, as in the Chicago case, at nonselective four-year schools)? What are the causes of high college dropout rates? Are students entering college with the qualifications and skills they need to succeed? Data point to some answers.

First, just as many students do not thrive in high school because they have received inadequate preparation in elementary and middle school, many do not succeed in college because they have not gained in high school the content knowledge, study skills, and willingness to work hard that are required for college. Students who have not acquired college-level reading, writing, and math skills are generally required to take remedial, or "developmental," classes once they get to college. And students who take these developmental courses are less likely to persist through the completion of a degree.¹⁷

High schools may also fail to impress on students the importance of good high school grades — generally an indication of effort as well as preparation — for success in college. The Consortium's data indicate that grades in high school are a far better predictor of college graduation than scores on standardized college entrance exams, such as the SAT or the ACT. For example, CPS students with a grade point average (GPA) of less than 3.0 were unlikely to graduate from a four-year institution, and those entering college with a GPA lower than 2.0 were unlikely to graduate from any college at all. Nonetheless, many students are not getting the message that grades matter — and many schools are not sending them that message. According to Roderick, many Chicago high schools concentrate on raising ACT scores rather than grades.

Finally, it appears that too many students are not receiving adequate guidance and are choosing to attend postsecondary institutions where dropout rates are high. Even among CPS students who graduated with a 4.0 GPA, those who attended some colleges and universities had a greater probability of graduating than those who attended other institutions. The disparities are sometimes dramatic: Thus, 97 percent of CPS graduates with a 4.0 GPA who attended one particular university graduated within six years, whereas only 29 percent of similar students who attended another university did so.

The data presented in this section cover a broad range of students over the course of their high school careers. They are not meant to suggest that struggling high school fresh-

¹⁶U.S. Department of Education (2001).

¹⁷Adelman (2006).

men and high school graduates with perfect grades who make unfortunate college choices face the *same* challenges. But they indicate that both groups face *serious* challenges. And they lend strength to the argument that *all* students can benefit when high schools adopt interventions and approaches that:

- leave students feeling that teachers and other adults care about them;
- demand more of students academically, while also helping those who have fallen behind to catch up and advance; and
- ensure that students think about and plan for what happens after high school.

Creating Schools Where Students Feel Attended To — and That They Attend

A positive school climate — one in which students and adults know each other well and in which adults express care and concern for students' well-being, intellectual growth, and educational success — is key in motivating adolescents to learn. All of the school districts that participated in the conference have instituted or are planning interventions to forge stronger relationships between students and teachers. This section summarizes these initiatives.

Students who feel that people at their school care about them and who believe that their absence from school will be noticed and missed are more likely to attend regularly. Because regular attendance is so critical to academic success, many districts have also put in place measures to help ensure that students come to school — and stay there — every day. These strategies are also described in this section.

Changes to Promote Personalization

Putting Out the Welcome Mat

Districts are adopting a variety of measures to ease the transition from middle school and to increase opportunities for adults and students to interact from the outset of high school — or even earlier. Thus, some districts hold formal summer orientation events for students entering ninth grade and sponsor other welcoming events to help students feel at home from the moment they arrive. Some districts also offer stepped-up counseling and mentoring for ninth-graders.

"Small Is Beautiful": School Restructuring

The reform agenda in a number of districts is geared to providing a range of high-quality school options that offer a choice of different kinds of personalized learning communities. Most districts are making structural changes — by breaking up large comprehensive high schools into small learning communities (SLCs) or small schools lodged within the same building or by establishing stand-alone small schools.

SLCs are self-contained groups of students who take classes together from the same group of core-subject teachers. The teachers meet regularly to discuss students' academic and personal progress and issues so that they can better advise and support both their students and each other. It is worth noting that the three high school reform models that

Creating Personalized Environments: Lessons from MDRC Evaluations

- Student survey data suggest that small learning communities (SLCs) groups of students who share the same cadre of core-subject teachers make students feel that their teachers know and care about them.
- Both SLCs that encompass all four grade levels and separate Freshman Academies followed by communities for upperclassmen can play a role in increasing attendance and reducing dropout rates.
- The separate Freshman Academy structure may play a key role in helping more ninth-graders succeed in the critical first year of high school.
- SLCs can serve as a platform for supporting other needed structural and curricular reforms, guidance systems for students, and professional development for teachers.
- Faculty advisory systems can give students a sense that there is an adult in the school looking out for their well-being.
- Implementing SLCs is likely to improve the climate of schools but will not, in and of itself, increase student achievement. It may help to do so, but the studies do not provide conclusive evidence on this point.

SOURCES: Quint (2006); Kemple et al. (2005).

MDRC evaluated have implemented the SLC concept in different ways: First Things First establishes four-year thematic communities; Career Academies combine academic and career-related courses and form partnerships with employers; and Talent Development includes an independent ninth-grade academy that feeds into upper-grade career academies.

SLCs are key components of reforms being implemented in many of the districts represented at the conference. Several districts have moved to institute ninth-grade academies, particularly to engage a population of freshmen who have had discouraging elementary and middle school experiences and arrive in high school with weak academic skills. Other districts are dividing all the schools in the district into four-year SLCs of 150 to 250 students, so that students remain with the same teachers throughout high school. District personnel have found that while SLCs can help to address the problems of impersonality and alienation that beset large high schools, they are not easy to implement; scheduling small groups of students into the same classes with the same teachers is challenging, especially as students move through high school and have more electives.

Seven of the districts that participated in the conference have opened a distinct kind of small school, the Early College High School, which affords students a personalized environment, challenging classes, academic and social supports, and the opportunity to earn a

high school diploma and a college associate's degree within four years. The Early College High School model is discussed at greater length below.

Adults Who Care (and Monitor and Nudge): Faculty Advisory Systems

An advisory or family advocate system is part of the SLC structure in many districts. Each student is paired with a staff member, generally a teacher in the SLC, who meets with the student to monitor academic progress and help resolve any academic or interpersonal problems (including problems with teachers) and serves as a liaison between the school and the student's family and community. In this way, every student becomes known well by at least one adult in the school. Professional development has focused on training teachers to fill the advocate role effectively — to have critical conversations with students, read transcripts, and understand college entry requirements so that they can advise students about the right courses to take.¹⁸

Educating the "Whole Child"

Representatives from the San Francisco Unified School District noted that students' personal conflicts and complicated life situations can hinder their ability to attend and engage in school. The district has partnered with city government agencies to create a wellness center at each high school to tend to students' socioemotional needs.

Boosting Attendance

Family Matters: Involving Parents and the Community

Conference attendees pointed to the key role that parents can play in promoting regular attendance. To enlist parents' support, it is important that both parents and students themselves understand the connection between good attendance and good grades.

Parents also need to find out promptly when their children are not attending. Many districts use automated telephone calling to alert parents when their child is not in class. (Some conference participants, however, asserted that this tends to be more effective with students whose attendance is generally good and whose parents are already involved with their educational progress.) In some districts, teachers rather than nonprofessional staff call the homes of students and also work directly with the truancy office. In others, parent liai-

¹⁸For a more detailed discussion, see MDRC's evaluation of the First Things First school reform model (Quint, Bloom, Black, and Stephens, 2005), of which the family advocate system was a key component.

sons or neighborhood community volunteers visit the homes of students with chronic attendance problems. The Oakland Unified School District employs case managers whose job it is to keep track of students who are not attending and to visit their homes.

The Kansas City, Missouri School District has gone a step further in parent involvement: It has instituted programs to help parents of students in the district prepare for college. In partnership with local institutions of higher education, the district offers parents refresher courses in writing, math, and computer skills and is creating pathways for them to earn a college diploma.

Scheduling "the Best" for Last

The Des Moines Public Schools has found that students come to classes that have something to do with real life: Students will selectively cut certain periods but will never miss Driver's Ed. Put the subjects that hold strong appeal, such as Driver's Ed and Debate, at the end of the day, the district suggests. Students who do not come for the whole day cannot participate.

Rewarding Good Attendance

Schools are also turning to positive incentives to increase attendance: Some of these involve changes in practice at the school itself. For example, teachers may exempt students with good attendance from one exam, or the school may enhance its extracurricular activities in arts and athletics with the stipulation that students can participate only if they attend class. Other rewards involve agreements with outside public agencies or private companies. Des Moines, for instance, has created a "Pass and Play" program, which rewards students for good grades and attendance with free or discounted passes to a number of the city's recreational facilities. In other districts, students who have good attendance are allowed to participate in raffles for amusement park tickets or store gift certificates.

Using Data to Focus Resources

To make inroads on attendance, it is important to know who the "problem cases" are. Well-designed information systems help. Through the San Antonio Independent School District's frequently updated I-data portal, for example, teachers and parents can get access to a student's data, including information on daily attendance and missing assignments.

It is even better to be able to identify students who are likely to miss school so that they can receive extra assistance before they begin to act out. Charleston, for example, has instituted an at-risk alert system that identifies incoming ninth-grade students whose middle school records indicate that they are likely to be frequent truants. The district feeds this in-

formation to principals and guidance counselors, who can meet with students before freshman year begins.

Avoiding Punishments That Make Things Worse

Requiring that students stay home because of disciplinary infractions does not help their course performance. Several districts cited changes in suspension policies — for example, sending students to community centers or alternative learning settings outside their home school rather than using at-home suspensions — as key to ensuring that students do not miss opportunities to learn. Some districts are developing alternative schools for chronically disruptive or absent students or those who are serving longer-term suspensions or expulsions. Other districts are reviewing grading policies that can discourage attendance: Leaders in these districts reason that if missing a certain number of days results in automatic course failure, students who have been absent a lot may simply give up — an outcome no one wants.

At the same time, some conference participants noted that a close working relationship with the police department and the court system is particularly important in stemming truancy.

Being Small Isn't Enough

The common characteristic of the New York City high schools that have had above-average success with low-performing students is that they are all small, noted Pedro Noguera, professor at New York University's Steinhardt School of Culture, Education, and Human Development, during a lunchtime address at the conference. This is not surprising. When students know that their teachers care about them, as is more likely to be the case in small schools, they may be more willing to attend regularly and work hard.

Conference participants pointed out that while strong teacher-student relationships are a key element of successful schools, they do not ensure that students' *academic* experiences will be meaningful and demanding. Toledo Public Schools officials commented that while the district has begun to establish new small schools, what happens inside the class-room matters more than school structure. Being small is not enough if lessons are not rigorous or relevant. In small schools, it may be easier to implement academic interventions, but small size does not ensure the success of these measures. The Atlanta Public Schools, for example, which has undertaken a systematic effort to convert its large comprehensive high schools into small schools, has paid particular attention to tiered professional development for principals and teachers in these schools. The next section of this report discusses districts' efforts to reach all students with high-quality instruction that meets their needs.

Fostering High-Quality Academic Experiences

What happens in the classroom — an educational environment that is meaningful and challenging and where there are clear, high, and consistent expectations — is key to students' academic success. But improving teaching and learning in low-performing schools is highly challenging. Schools must work hard to ensure that students get on track, stay on track, receive instruction that they perceive as engaging and relevant, and pursue a course of study that will lead to graduation and successful postsecondary outcomes. In particular, officials from the districts attending the conference reported struggling with how to help students who start off far behind in their academic skills to forge ahead on a rigorous instructional course.

Many districts at the conference have focused their efforts on improving the "instructional core": curriculum, teaching, and learning. Many of the strategies they have adopted address four needs — for *remediation*, *relevance*, *rigor*, and *rewards*. This section discusses the districts' efforts to improve teaching and learning with respect to these new "four Rs." It also makes note of alternative options for students for whom regular schools, even those that are undergoing reform, are just not working.

Remediating Learning Gaps

Getting Caught Up at the Get-Go

Students must have a foundational level of knowledge and skills to survive and succeed in high school. But nationally, only about one-third of eighth-graders scored at "proficient" or "advanced" levels on the 2005 National Assessment of Educational Progress mathematics or reading tests.¹⁹ Even when achievement is measured by local rather than national standards, in most states at least one in four students enters high school with eighth-grade math and/or reading scores below the level of proficiency.²⁰ Many ninth-graders need extra support to get caught up at least to grade level in reading and math. Unless they take remedial classes over the summer after eighth grade, enroll in back-to-back remedial and grade-level courses during the school year, or receive intensive tutoring, they will be unlikely to earn enough credits in their first year to put them on track for graduation.

¹⁹Education Week (2007). The National Assessment of Educational Progress reports three levels of achievement — basic, proficient, and advanced — that correspond with what students should know and be able to do at each grade level and for each subject tested. A fourth category includes students who are "below basic."

²⁰Education Week (2006).

Improving Instruction: Lessons from MDRC Evaluations

- A double-blocked schedule (with classes meeting daily for extended periods) is useful because it permits students to attempt and earn more credits per year than other scheduling arrangements.
- Semester-long, intensive "catch-up" courses that shore up ninth-grade students' skills in reading and mathematics appear to help students succeed in the regular curriculum, with gains in credits earned being sustained over time.
- The structured curriculum of catch-up courses, combined with longer class periods, may help ensure that students spend more time "on task" in these classes.
- Good advance training and ongoing coaching can help teachers make better use of curricula.
- There is suggestive evidence that student achievement may be enhanced by professional development activities that involve teachers in working together to align curricula with standards, review assignments for rigor, and discuss ways of making classroom activities more engaging.
- Both academic departments and small learning communities should be regarded as key venues for instructional improvement.
- If administrators want teachers' common planning time meetings to focus on instructional improvement, they must both provide guidance about how to do this and follow up to ensure that meeting time is used productively.

SOURCES: Quint (2006); Kemple et al. (2005).

Identifying and helping students before they reach high school. The districts represented at the conference have adopted a number of initiatives for students who are entering high school with low skills. Sometimes these efforts begin even before ninth grade. Just as Charleston flags students who have had attendance problems in middle school, it also uses data to predict which students are likely to have academic problems in the ninth grade. The district then brings these students in for remediation before they enter high school — an enterprise that, while expensive, is worthwhile, in the view of district officials.

The Buffalo Public Schools is also notable for its early-intervention efforts. In the 2005-2006 school year, the district instituted a Commencement Academy to target rising ninth-graders who do not meet state standards on the Grade 8 English Language Arts and Math assessments and are unprepared for a rigorous high school curriculum. During the summer following eighth grade and over the course of the next academic year and summer,

Academy students take a structured sequence of courses, including double periods of English and math, all offered on a high school campus. Students who succeed in the Academy are promoted as regular tenth-graders.

Strengthening the skills of ninth-graders through special courses. To strengthen skills in reading and mathematics, several districts have implemented semester-long "catchup courses," which are often offered in conjunction with a double-blocked class schedule that calls for classes that meet daily for extended periods.²¹ As MDRC's evaluation of the Talent Development model demonstrates, combining the catch-up classes with doubleblocking has strong advantages for students: It allows them to take catch-up classes in reading and/or math during the first term and regular college prep classes in English and/or math during the second term; they receive a full year of credit for their college prep classes taken during a single, intensive semester. In Oakland, where double math periods are used for remediation, the district has found that a positive experience in the catch-up class raises students' expectations of subsequent success in their regular class. In Oakland, too, students can retake tests and get immediate after-school tutoring from teachers or high school seniors on material with which they are having difficulty. In addition, the district uses PLATO, a self-paced computerized tutorial that offers students both instruction and exercises, while teachers provide some supervision. Along with catch-up courses, a number of districts have put in place courses for freshmen that focus on developing strong study skills.

In general, districts have discovered that good extra help for ninth-graders who need it can raise the quality of instruction for all ninth-graders. Teachers need not lower content standards and expectations in the regular ninth-grade classes they teach because they know that students who need remediation are getting it in other venues.

Saving the best for first. Because freshman year is so important for success in high school, ninth-graders should have the best teachers, those who are both nurturing and engaging. But because ninth-graders are generally more immature than other students, both intellectually and in their behavior, teaching ninth grade is generally viewed as an unenviable assignment, one that teachers try to earn their way out of. As a consequence, ninth-grade teachers tend to be less experienced and less credentialed than their counterparts in the upper grades.

Representatives from the districts suggested various ways to address this problem. Better teachers might be drawn to the ninth grade through special incentives, higher pay, and greater prestige. School districts can also consider marketing efforts to raise community

²¹Teacher team meetings held during double-blocked periods are expensive, participants cautioned, because other adults must be available to teach or otherwise supervise students while the team meets.

awareness of the issues and explain the need for well-qualified ninth-grade teachers. Finally, as discussed below, districts can see to it that ninth-grade teachers have the professional development they need to improve their practice.

Conference attendees agreed that the principal plays a major role in improving ninth-grade instruction. Experienced principals, they noted, "work the system" to get good teachers and create a climate that fosters growth by students and teachers alike.

Even the best teachers still need support. Participants noted that the common planning time afforded by a ninth-grade SLC structure enables teachers to work together and share both problems and solutions.

Helping Lagging Students Stay on Track and in School

Students may become discouraged and consider dropping out if they have problems learning the material and their needs go unaddressed. Districts attending the conference have developed strategies for identifying students who are having difficulties learning and offering them timely support and remediation.

Helping repeat ninth-graders get unstuck. One readily identifiable group of students who are at significantly higher risk of dropping out are those who have repeated ninth grade. Many districts have developed multiple options for credit recovery for overage ninth-graders. For example, they have put in place after-school programs with small classes and additional guidance and support services, where students can repeat courses they have failed. Some districts also make use of distance learning and dual enrollment programs, in which students receive both high school and college credit for their work. The McAllen district, for example, instituted a dual enrollment program on a community college campus for second- and third-year ninth-graders who have accumulated only two or three credits and might benefit from being placed in a setting outside their high school, one in which they would not be recognized as having been held back. The dual-enrollment students spend a half day at the college studying business computer applications and drafting and a half day at their high school. If they are successful in summer school classes, they can move on to their junior year in high school.

Using data and periodic assessments to diagnose problems and implement solutions — fast. Representatives from a number of districts discussed their use of management information system data to identify students who need assistance and guide decision-making. Starting early helps: Allensworth and Easton maintain that schools can increase their graduation rates by monitoring the progress of students in their very first semester, identifying those who are off track and targeting remediation appropriately.

Participating Districts' Strategies for Getting Freshman Year Right

- Hold summer orientation and other welcoming events for entering ninth-graders.
- Use eighth-grade data to identify freshmen with potential attendance and learning problems and give them special attention and academic assistance.
- Set up a Ninth-Grade Academy, a special small learning community exclusively for ninth-graders.
- Provide ninth-graders with extra counseling and mentoring support.
- Establish catch-up classes for ninth-graders who need to strengthen their reading and math skills.
- Enroll freshmen in special Introduction to High School courses where they can improve their interpersonal and study skills and learn time management techniques.
- Offer incentives to better teachers to teach ninth-grade classes.
- Schedule common planning time for ninth-grade teachers so that they can discuss students' progress and problems and work together to develop engaging academic and extracurricular activities for students.
- Begin college planning in the ninth grade.
- Encourage ninth-graders to take the Preliminary SAT/National Merit Scholarship Qualifying Test.

Well-conceived management information systems allow teachers easy access to student performance data. The Austin Independent School District's management information system, for example, provides a central databank to which teachers can gain access from computers in their classrooms. Such systems are likely to be most effective when they include data from assessments that are administered frequently, when data from the assessments can be turned around and sent to teachers quickly, and when the data clearly show what students need to learn. In this way, problems can be diagnosed and addressed before they get worse. The Richmond Public Schools, for example, employs "benchmark" assessments — tests that measure students' progress against standards and gauge learners' strengths and weaknesses. Administered every nine weeks, these assessments are used to identify areas where additional resources can be directed — for example, toward professional development for some teachers and tutorials for those students who have not picked up key skills in their core courses. The district also employs biweekly interim assessments that are aligned with district learning standards, which provide simple measures of student progress. In the Fresno Unified School District, benchmark assessments take place every

nine weeks. District officials noted that some teachers have been suspicious of the assessments, fearing that the results would be used to penalize them. The purpose of the assessments, however, is to help students: When the assessments indicate that students are struggling, the school can immediately supply tutors to assist them.

A benchmarking strategy that ties curriculum to assessments and to progress is also a key component of the Kansas City, Kansas, district's ongoing reform efforts. All schools have benchmarks for what students should know and by when, and the district's management information system provides immediate feedback to teachers. This information is shared among all teachers in the SLC to which the student is assigned, so that everyone on the team knows the student and his or her achievements and needs. The benchmarks can trigger needed student supports, including tutoring by teachers or other students. Intervention teachers typically work with two to five students who need help in reaching particular benchmarks, and both teachers and students are held responsible for meeting them.

As in Kansas City, Kansas, and in Richmond, other districts make use of tutoring, both during the school day and after school. Several conference participants commented that tutoring is most useful when it is closely integrated with regular coursework and when tutors help students learn what they are immediately expected to know rather than general subject-area knowledge. Lines of communication between tutors and classroom teachers, therefore, must be open — and frequently used.

Data can be useful not only for addressing the needs of individual students but also for planning whole-class instruction. In Austin, for example, ninth-grade English teams use classroom performance data in lesson design.

Substituting summer learning gains for learning losses. Summer school is also a tool for helping students fill in learning gaps. Buffalo, for instance, mandates four-week summer school sessions for all students whose work is below grade level. Because the district has ended social promotion, attendance at summer school is critical to enable students to keep up with their age peers.

Introducing new in-school programs. Finally, Richmond has instituted the Communities in Schools program to assist students who are still in school but are overage and undercredited and at risk of dropping out. To prevent these students from falling further behind, the schools use computed-assisted instruction and highly personalized learning strategies. Parental involvement is mandatory, and the programs have themes that engage students' interest.

Making Learning Relevant and Rigorous

Meaning starts with "me." Students especially appreciate academic experiences that help them understand themselves, the world around them, and their current and future place in that world. Classes in which teachers draw explicit connections to issues in students' communities and in their personal lives, as well as to what they are learning in other courses, help students understand the relevance of what they are learning.

Students may perceive relevance more clearly when they work in groups, and, as district representatives noted, this instructional modality is also useful because more engaged students can exercise positive peer pressure to draw in their less engaged counterparts. Students also want reassurance that what they are learning will be helpful for them in the future. Bringing in outside speakers who can talk about how their education prepared them for success can help students see the point of working hard and doing well.

The Corpus Christi Independent School District has paid particular attention to reengaging "reluctant learners" by making instruction more relevant. The district recently developed a centralized teacher-written curriculum in all core-content areas. Professional development has focused on disseminating this curriculum and developing appropriate lessons and assessments.

Strengthening and standardizing what's taught. Rigorous instruction begins with the curriculum. Many districts have worked to develop a high-quality curriculum, for example, by revising the course of study in English and math classes to align it with state standards. They have also sought to standardize the content and pacing of what is taught across classrooms and schools through the creation of pacing guides in all subjects, which are linked to benchmark assessments. A common curriculum facilitates professional development for teachers. Several conference participants also noted that a standard curriculum and pacing guides are important tools for dealing with the problem of student mobility. The Chaffey Joint Union High School District in Southern California, for instance, has long had to cope with a highly mobile population. By bringing uniformity to the content and pacing of instruction across its eight comprehensive high schools, the district has sought to ease the adjustment of its many transfer students.

Some districts make special efforts to ensure that teachers are familiar with the curricula for courses other than the ones they teach. In Richmond, for example, all staff, including special education teachers, attend sessions that cover what should be taught and when. In this way, all teachers, including those who are just starting out, learn about the core of basic knowledge that all students are supposed to master and, more specifically, about what has been covered in previous grades.

Using professional development to improve teaching. Many conference participants expressed the view that good instructional outcomes depend on good teaching. To improve the quality of classroom instruction, districts have generally targeted professional development efforts to teachers, both individually and in groups.

Coaching plays an important role in many district improvement efforts. A number of participants noted that it was desirable to have reading and math coaches in all schools and that it was important to institute a near-permanent coaching infrastructure because of the high mobility of teachers (as well as principals) in many comprehensive high schools. Coaches may work with individual teachers and groups of teachers. For example, because Boston Public Schools leaders believe that there is a relationship between student engagement and literacy, the district has made a significant investment in literacy coaches to provide professional development and support for teachers of reading. The coaches use a model that involves teachers collaborating with their colleagues to find improved ways to deliver engaging and content-rich instruction.

District representatives described other professional development initiatives that engage teachers in working together. In some Austin schools, for example, teachers in the four core areas (English, math, social studies, and science) collaborate on a model lesson: One teacher demonstrates the lesson, while the others observe and then discuss what they saw. District officials acknowledge that this form of professional development can make some teachers uncomfortable. Teachers may benefit from orientation about the broader purpose of the activity, which is to improve teaching, not to "get" individual teachers.

Principals can benefit from professional development, too. As conference attendees noted, the principal is the most important instructional leader in a school. Principals' classroom observations and their responses to what they see are critical for developing and maintaining academic rigor. Many districts have invested heavily in professional development for principals, as well as teachers. For example, San Francisco has been defining leadership competencies and developing supports for principals. The Pittsburgh Public Schools has embarked on a comprehensive plan for recruiting, training, evaluating, and mentoring principals. It offers them payfor-performance contracts with bonuses of up to \$10,000 awarded on the basis of achievement gains and acceptance of other responsibilities, such as mentoring aspiring principals. Buffalo is partnering with outside agencies that can assist principals in implementing reforms. And, in Atlanta, principals meet as a professional learning community to talk about what makes academic content engaging for students and then return to their schools to translate these concepts into practice in working with their teachers.

Using leadership teams to change school culture. The Saint Louis Public Schools emphasizes the role of leadership teams in changing the culture within schools. The teams

— which include the principal, assistant principal, and SLC coordinators — work to raise teachers' expectations of student performance and to engage teachers in developing a professional learning community. The district has revised schedules to make staff time available for professional development every week. Fresno, too, makes use of instructional leadership teams in each school. In these places and others, the district has invested in increasing the capacity of building-level leaders to recognize and promote high-quality teaching.

Rewarding Learning

When students get assignments that are doable but challenging, they can experience a sense of pride and fulfillment in meeting these challenges. Students respond well to extrinsic as well as intrinsic rewards for doing high-quality work, conference participants observed. District representatives talked about some of the ways they recognize students who do excellent work. These include portfolio projects and performances, which allow students the opportunity to demonstrate their accomplishments to others, as well as incentive programs and award ceremonies. Even something as small as a "respect pin" awarded by their peers can make a difference.

Students cannot be expected to do excellent work, however, unless they know what excellent work looks like. As a conference participant noted, teachers would do well to take a cue from activities where teenagers try hard to succeed — video games or sports, for example. In these activities, there are high goals and performance expectations, a clear definition of what success is, and constant feedback about how to improve. But while the average student learns that showing up makes the difference between getting a D and an F, teachers need to do a much better and more consistent of job of explaining the quality of work that will net an A, B, or C.²² It is through such explanations that the abstract goal of "high expectations for all students" can take on concrete meaning.

In Kansas City, Kansas, family advocates keep students and their parents informed about the benchmarks the student has reached and the goals that lie ahead. The aim is to encourage students to think about — and do — what it takes to complete a course or pass an exam. Students understand the goals identified for each course and can study over lunch at a "benchmark cafe." Similarly, Oakland is seeking to show teachers, students, and the community at large what exemplary student performance looks like, starting with student writing and eventually expanding to other content and skill areas. In this way, all parties can be held accountable for the quality of work students produce.

²²This is an area for professional development, according to University of Chicago professor Melissa Roderick. She suggests that administrators sit in on classes, try to figure out what would be required to get an A on a given assignment, and ascertain how clearly the teacher explains the grading standards.

When an Alternative to the Regular High School Is Called For

Last — but far from least — conference participants noted that, even in the face of wide-scale reforms, some students may still fail to thrive in a regular high school and may need an alternative setting to succeed. Boston makes a number of options available for students whom more traditional high schools have not served well. The district's pilot schools operate with considerable autonomy, with advisory programs that engage students and their parents.

Charleston, too, has many alternatives for high school students. The district has forged an agreement with the local technical college to accept students who pass the General Educational Development (GED) test. For overage high school students, there is a "2+2" program, whereby students enroll in a Charleston County School District adult education program for two years to earn a GED certificate and then enroll for an additional two years at the technical college. After four years, students have both a GED and an associate's degree and/or a trade certification.

While New York City was not an official participant at the conference, representatives from the city's Department of Education were invited to describe some of their initiatives. The department created an Office of Multiple Pathways in 2005 to develop education models to better meet the needs of students who are so far behind their age peers scholastically that they are at high risk of dropping out. A primary concern was to ensure that while the educational settings would be supportive, the content would remain rigorous so that the diploma would not be devalued. To enable potential dropouts to graduate, the office created three main pathways, two leading students to a standard diploma and the third to a GED:

- Transfer Schools (full-time, academically rigorous alternative schools with expanded student supports)
- Young Adult Borough Centers (learning environments with nontraditional block schedules that allow students to acquire the credits and to pass the Regents exams necessary for a high school diploma)
- GED programs

In short, one size does not fit all. The more flexibility districts and schools have to respond to students' individual needs, the better their outcomes are likely to be.

It is important to note that while this discussion has described the discrete strategies districts are using to improve teaching and learning, many districts have set out more holistic plans for academic improvement. Fresno, for example, has developed a comprehensive set of reforms that include (1) a unified and standardized curriculum and approach to lea-

dership, (2) attention to campus culture as an important factor in student learning, (3) a set of formative assessments in core academic classes, and (4) an instructional leadership team in each school. Other districts have also adopted similar multifaceted approaches to instructional improvement, in the belief that the whole will, indeed, be greater than the sum of its parts.

The Importance of Preparing Students for Success After High School

Many of those attending the conference commented on the wide gap between aspirations and reality when it comes to college attendance. As previously noted, the large majority of high school students report that they plan to go to college, but a much smaller proportion actually does so, and an even lower proportion completes a two- or four-year degree. Much of the discussion at the conference concerned the reasons for this gap and what high schools are doing to make students not only willing but also ready and able to attend college.

David T. Conley has put forth an operational definition of "college readiness," which identifies what high schools can contribute to a student's toolbox of skills and knowledge.²³ He describes four basic elements of college readiness:

- Habits of mind (intellectual openness, inquisitiveness, independence, persistence, precision, and accuracy, along with analytic, reasoning, interpretative, and problem-solving skills)
- Key content (overarching skills that cross content areas, such as writing and research, along with sufficient content knowledge in English, mathematics, science, social studies, world languages, and the arts)
- Academic skills (self-monitoring and study skills)
- Contextual skills and awareness (having the information needed to understand how college operates)

The discussion in the preceding section of this report suggests that high schools that promote academic rigor and high expectations can go far to prepare students for college success. The present section examines specific measures that districts attending the conference have put into place to further ensure a successful transition to college. They are of two broad types — fostering college readiness in the classroom and institutionalizing college planning — often used in combination. To do both, many districts have forged strong relationships with local institutions of higher learning.

Fostering College Readiness in the Classroom

Making sure that high schools teach courses that prepare students for college. Colleges expect applicants to have taken certain classes that have covered certain content areas. Omaha, working with the College Board, has pursued a strategy known as "vertical teaming" to define a course of study for elementary, middle, and high school students. The goals are to ensure that students will leave middle school with the skills needed to do high school work and that they will graduate from high school having taken the classes and learned the content that colleges expect. Similarly, Pittsburgh, in partnership with Kaplan K12 Learning Services, has worked to bolster the district's curriculum and make it more rigorous; initial efforts have focused on English and math. In order to graduate from high school, students in Des Moines must take the number of credits in core areas recommended by the developers of the ACT college entrance test.

A conference participant noted that, in the state of Washington, state and school district officials worked together to align the high school math curriculum with the requirements of local community colleges. This partnership transformed the state-level standards and, in so doing, ensured that students would arrive in college having been introduced to concepts they are expected to know.

Exposing high school students to college-like courses. Students are more ready for college if they understand the level of work expected of them. Advanced Placement (AP) classes are designed to offer challenging, college-level content to students while they are still in high school. Many districts attending the conference have expanded their AP offerings. In Buffalo and Saint Louis, for example, all high schools offer AP classes. San Antonio's newly established Office of College Readiness is working to create more uniform standards for AP and International Baccalaureate courses. Memphis City Schools has taken advantage of technology, adding e-learning options to the curriculum in order to increase students' access to AP classes. Conference participants were especially enthusiastic about AP classes as helping to cure the problem of "senior slump" during the last semester of high school, when students who have already been accepted to college are especially likely to slack off.

Dual-enrollment classes are another way of infusing college-style courses into students' high school experiences and, thereby, of easing the college transition. Dual enrollment allows high school students to enroll in college courses and to apply the credits they earn toward both high school and college graduation; students can graduate from high school with some college credits already in place. Dual enrollment also expands the range of courses students can take beyond those offered in their high schools. For example, for the past 10 years, seniors in Charleston have been able to take college-credit classes on their high school campus with adjunct

professors detailed from the College of Charleston and Trident Technical College, and, in Toledo, students can spend their entire senior year in college.

Making College Part of the Game Plan

Starting college planning in ninth grade (if not earlier). Conference participants noted that students need to start planning early for college — and that ninth grade is not too early. In a number of districts, ninth-graders develop individualized high school graduation and postgraduation plans and take field trips that expose them to college and university settings. Students in the Saint Paul Public Schools start planning even earlier: The district operates an advisory program in which eighth-grade students create a six-year plan that takes them through high school and beyond.

Making college planning a family affair. The districts have found that it is useful to enlist parents or guardians in the college planning process, especially if these parents have not attended college and are unfamiliar with what is required. In Richmond, for example, teachers now meet individually with parents and students to formulate long-term action plans. These plans are informed by the results of a test that helps ascertain whether the student is on a successful trajectory toward college or job readiness.

Strengthening guidance. Conference participants noted that, because teachers and guidance counselors may be the only college-educated adults to whom many students have regular access, it is especially important that guidance counselors and other advisers have the resources to do their job effectively. And the most precious of these resources may well be time. When guidance counselors carry caseloads of 400 students, as is true in many districts, they are too often unable to provide the individual attention that students need to negotiate the college admissions process. In contrast, Des Moines has instituted a plan in which each adviser is responsible for no more than 20 students with whom he or she meets individually over six years to plan for postsecondary education or job training.

Helping students step up to the test. Students who do well on the SAT or the ACT test have a big advantage in securing admission to the college of their choice. Districts are trying out different approaches to boost students' performance on these tests. The Kansas City, Missouri, district, for example, has contracted with Kaplan Test Prep and Admissions to provide ACT preparation classes.

In Buffalo, freshmen take the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT), which is usually administered to sophomores and juniors. The district points to several benefits of early PSAT/NMSQT testing. First, the PSAT/NMSQT familiarizes students with the SAT, which is similar. Second, it gives students practice with

the PSAT/NMSQT itself, which, when taken by the fall of junior year, identifies potential National Merit Scholars. Being designated a National Merit Scholar is not only a recognition of significant academic achievement but also brings the possibility of financial assistance with college costs. Taking the PSAT/NMSQT early also helps make the idea of college-going real, because students who take the test, especially those who do well on it, begin to receive informational mail from colleges. Finally, district officials note that the test supplies teachers and others with useful assessment data.

Showing students the money. District representatives talked about the importance of making students aware of available scholarships and other financial aid options. In this context, there was discussion of the increasing number of merit-based scholarship programs like the State of Georgia's HOPE Scholarship program, which provides financial assistance to eligible students in degree, diploma, and certificate programs in public and private colleges and universities and public technical colleges within the state.

Conference participants noted that helping students and their families understand and complete the famously lengthy and detailed Free Application for Federal Student Aid (FAFSA) form is another way schools and counselors can help ensure that students with limited resources can go to college.

Making college-going a matter of community pride — and resources. In 2006, the superintendent of Pittsburgh Public Schools and the mayor of Pittsburgh announced the Pittsburgh Promise, a major initiative to help students who meet standards to plan, prepare for, and pay for education after high school. Initially designed by the district's High School Reform Task Force and the Mayor's Business and Economic Development Committee, the program's goal is to make funding available to all Pittsburgh Public Schools graduates for tuition at an accredited postsecondary institution within the state, as long as they make regular progress toward the completion of a degree or a certificate program. A local foundation has established a multimillion-dollar fund to support the initiative with a major initial contribution from the University of Pittsburgh Medical Center and annual funding campaigns targeted to Pittsburgh-based corporations and businesses and other donors. The Pittsburgh Promise appeals to both altruism and self-interest — it draws on the civic-mindedness of individuals and institutions while helping to ensure that the city's future workforce will be well educated.

A similar initiative, the Atlanta Promise, does not formally involve the Atlanta Public Schools but works closely with the district. And Saint Louis has guaranteed a college scholarship to every student in the class of 2010 who earns it.

Prepping for College and Work Together: Lessons from MDRC's Evaluation of Career Academies

Career Academies are organized as small learning communities, combine academic and technical curricula around a career theme, and establish partnerships with local employers to provide work-based learning opportunities. MDRC's 15-year evaluation of the Career Academy approach found that:

- Students who participated in Career Academies earned, on average, 11 percent more per year over the eight years of follow-up than individuals in the control group. These impacts on earnings were concentrated among young men and students at risk of academic failure.
- Career Academy students' exposure to job-shadowing, work-based learning activities, career fairs, and career-related guidance may have driven the positive labor market impacts.
- The labor market gains seen by Career Academy students did not come at the expense of their educational attainment. Eight years after scheduled graduation, 95 percent had finished high school or received a General Educational Development (GED) certificate, and 50 percent had earned some form of postsecondary certificate or degree.
- Although the Academies provided a viable pathway to postsecondary education, they did not create better opportunities than those offered in the regular high school environment. Career Academies face a special challenge to increase academic rigor while maintaining their distinctive contribution to students' preparation for the labor market.
- After eight years of follow-up, participants in Career Academies were more likely to be living independently with children and a spouse or partner, compared with those in the control group. Male participants in Career Academies were more likely than nonparticipants to be married and to be custodial parents.
- Career Academies have proved to be challenging to implement on a large scale with high levels of fidelity, and the evidence from this evaluation may not apply to programs that are partially implemented or that use only selected features of the key Academy components.

SOURCE: Kemple (2008).

"Postsecondary Success" Means Success at Work, Too

Conversation at the conference largely centered on preparing students for college. But, for some students, college may not be the best option, at least not immediately after high school. Just as many schools are beginning early to engage students in planning for college, so they are also introducing career-based themes early (sometimes in freshman year). And they are also establishing partnerships with businesses that expose students to various career paths and give them opportunities for internships and job-shadowing. Toledo's Technology Academy, for example, has built strong relationships with the business community. San Francisco has created a School-to-Career Department within the district's central office to guide and assist schools in these efforts.

Many conference participants noted that there is a false dichotomy between preparation for college and preparation for the workplace, since the skills that lead to success in school also lead to success in the labor force. Literacy, self-confidence, time management and study skills, passion, resiliency, and having a vision for the future — all of these are qualities that employers as well as colleges look for in young people. The dichotomy is also a false one in the lives of young people, since most low-income college students also hold jobs while they are in school. There was strong consensus among conference participants that academic rigor, high expectations, and social supports are critical both to meet the needs of the workplace and to prepare students for postsecondary education. High schools are in the process of transforming themselves to meet both sets of imperatives.

Final Reflections

Putting Knowledge to Work: A Summit of Midsize School Districts was intended to foster dialogue between the research and practitioner communities that would address both the growing body of rigorous knowledge about effective interventions and the wealth of insights stemming from the implementation of innovative but untested practices. The discussions during the conference illustrated the promise and the challenge of this dialogue. The participants affirmed their commitment to knowledge-building, and, in some cases, districts' reform agendas aligned closely with key reform principles that have been borne out through evaluation. But, just as often, districts described a slate of reforms or programs that were developed based on the insights and expertise of educators but without any real proof of their effectiveness.

The districts' candid sharing of their practices provided a snapshot of high school reform at a critical national moment. Even though there were differences in demographics, resources, and leadership, the districts shared common challenges, employed many of the same interventions, and aimed to use similar district-level "levers" to effect change. It is evident that tremendous energy and resources are being focused on the transformation of the American high school. And it is clear that secondary education has moved to the fore for the participating districts' leaders, both spurring and responding to the prominence of high school reform on the agendas of federal, state, and local governments and nonprofit and philanthropic organizations.

Throughout this publication, a series of boxes highlights some lessons and practices that have been supported or suggested by rigorous studies conducted by MDRC. These foundational concepts provide a good starting point for the sustained collective learning that will be necessary to transform the American high school. The conference served as a reminder that, as the field of secondary education develops, a remaining challenge is to build an integrated learning community, in which research responds to practitioners' needs and practitioners are purposeful about learning as they go. The unprecedented level of activity and talent directed toward high school reform and the shared commitment that was in evidence at the conference are positive signs of the potential for knowledge-building as reforms move forward.

This section recapitulates the broad themes of the conference and ends by identifying several areas that are ripe for collective investigation. In the coming years, there is an opportunity to strengthen the state of knowledge about these topics and to match the investment of programmatic energy with efforts to answer hard questions about whether the interventions are truly making a *difference* for students.

Overarching Themes

District representatives expressed concern about the difficulties associated with engaging, supporting, and inspiring a heterogeneous student body and preparing students to meet high standards, particularly when many students arrive significantly underprepared for the diverse academic and social demands of high school. Statistics associated with the start and finish of the "high school footrace" — the large numbers of students who drop out of ninth grade and the disappointingly low numbers who cross the stage at graduation — give evidence of these common challenges. How to help students bridge the transition to ninth grade was a much-discussed topic.

However, many conference participants placed an equal emphasis on the years between these two critical transition points. Districts acknowledged the multifaceted challenge of keeping students "on track" and often used the discussion about grades 10 through 12 as an opportunity to discuss the difficulty of delivering high-quality instruction, both in terms of what is taught and how it is taught. Finally, researchers who led the discussion sections focused attention on yet another key transition — entry into college — pointing out that just because a student has been admitted to college, success and persistence are far from guaranteed.

As described in this report, the reform measures that districts have adopted in response to these challenges cluster into three categories:

- Personalization. Supplying individualized attention and personalized options that respond to student needs and choices.
- Academic rigor. Delivering a demanding yet accessible curriculum that engenders critical-thinking skills as well as content knowledge.
- Postsecondary preparation. Making possible a smooth transition from high school to the world of higher education and work by providing students the guidance and understanding they need to be admitted to and ultimately succeed in college.

Many of the steps districts have taken are geared toward changing the *classroom* and the *school*. However, as district representatives discussed these interventions, they acknowledged the importance of changing their own actions as well — by applying system-level pressure and providing overarching support aligned with classroom- and school-level goals.

Levers for Change

Plenary speaker Joel Klein, chancellor of the New York City Department of Education, noted that a critical role of the school district is to identify and make use of the key "levers" most likely to affect systemic change. Over the course of the conference, the levers most often cited by districts were:

- Raising standards. Implementing higher, uniform standards for curriculum, service and work-based learning, college preparation, and graduation requirements.
- Expanding high school options. Increasing the number and types of secondary schools, creating new stand-alone small schools or restructuring comprehensive high schools into campuses of small schools, and providing more alternative pathways for students who are not thriving within a regular high school setting.
- Improving the quality of teaching and leadership. Improving teacher quality through targeted recruitment and incentive programs that reward students' gains or encourage teachers to work in underperforming schools, along with investing in principal training programs and school-based efforts to engage teacher-leaders in instructional improvement activities.
- Using better data and better tools. Developing better assessment and tracking tools for teachers, increasing the capacity for data management and analysis at the school and district levels, and implementing data systems capable of measuring growth and progress as well as ultimate outcomes.
- Blurring the line between school and community. Forging linkages with
 youth development and community organizations that can help to support the
 emotional, physical, and social development of students, and creating college
 and business partnerships intended to illuminate the path leading from high
 school to the world beyond.

In order to be effective, district leaders said, district-level reforms must be coordinated and comprehensive. However, conference participants also acknowledged the logistic and fiscal realities of operating urban school districts. While many districts ultimately aspire to change practice in all five of these areas, operational constraints often spur districts to invest deeply in one or two dimensions, sometimes at the expense of others.

In its synthesis of the findings of three prominent high school reform models, MDRC identified structural change *and* instructional improvement as the twin pillars of

effective models.²⁴ While investments in any one of the domains listed above may serve to initiate change and or to provide a strong foundation for school improvement, it is likely that deep, sustained transformation will take place only when multiple levers are activated together.

Topics for Future Investigation

The reforms that district representatives described at the conference were many and diverse. It is important to note, however, that very little is yet known about their effectiveness.

The challenges high school districts face are not likely to dissipate, and district leaders cannot put on hold actions to address them while they await rigorous evidence. The conference revealed at least three broad areas in which practitioners have experienced promising results and have thus made substantial investments in programs but where the research base is incomplete and inconclusive. Rigorous investigation into these areas could provide valuable information to education policymakers and administrators. They are:

- SLCs as the foundation for instructional change. Research demonstrates that small schools and SLCs are effective means of creating more personalized environments capable of increasing student engagement. Further evaluations might investigate how the scheduling mechanisms of SLCs (for example, common planning time) can most effectively be used to improve instruction and how formalized socioemotional supports (such as advisory systems) can help improve postsecondary outcomes.
- Teacher quality. The issue of teacher quality, particularly in urban settings, merits rigorous study. Future evaluations might investigate innovative teacher training programs, district policies to attract and retain successful teachers and deploy them to high-need schools, and promising models of professional development.
- College preparation programs. The investment of many districts in programs intended to increase college readiness should be studied in terms of the impact of these initiatives on college completion. Future evaluations might investigate both cross-curricular and stand-alone interventions, guidance and admissions counseling, and models aimed at increasing exposure to both college and work.

²⁴Quint (2006).

Looking ahead, the education community has a tremendous opportunity to match innovation with evidence and to take advantage of today's unprecedented investment in secondary education to yield enduring lessons for the field.

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MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York City and Oakland, California, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are proactively shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for exoffenders and people with disabilities, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Child Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.